

REMARKS

Upon entry of the present amendment, claims 1-4 will remain pending in the above-identified application and stand ready for further action on the merits.

The amendments made herein to the claims do not incorporate new matter into the application as originally filed. For example, claim 1 has been amended based on disclosure in the original specification at page 4, lines 12-25 and the embodiments presented in Figures 1-4 of the application.

Claim Language Interpretation

The USPTO's comments at paragraph "2." of the office action do not effect the literal scope of the pending claims and/or limit the equivalents that are protected and encompassed thereby.

Claim Rejections - 35 USC § 112

Claims 1-4 have been rejected under the provisions of 35 USC § 112, first paragraph as failing to comply with the written description requirement. Reconsideration and withdraw of the rejection is respectfully requested based on the amendments made herein to the claims.

As currently amended, all of pending claims 1-4 find full and complete written description in the original filed specification.

Also each of pending claims 1-4 fully complies with all provisions of 35 USC § 112.

Claim Rejections 35 USC § 103(a)

Claims 1-4 have been rejected under 35 USC § 103(a) as being anticipated by Clear et al. (US 5,368,584) and thereby Buell et al. (US 5,221,274). Reconsideration and withdraw of this rejection is respectfully requested based on the amendments made herein and the following remarks.

Incorporation Of Earlier Remarks

The Examiner is respectfully requested to consider remarks set forth in the earlier response of February 19, 2004, especially at pages 9-17 thereof, since such remarks strongly evidence the patentability of the present claims over the cited art of record. The Examiner is also respectfully requested to review the prior response of September 8, 2003, wherein the Applicants responded to the art rejections outstanding. Please see page 8, line 15 to page 12, line 21 of the response filed on September 8, 2003.

Such remarks of the prior responses are incorporated herein by reference in their entirety, inasmuch as they remain appropriate to support and evidence the patentability of each of the pending

claims 1-4 over the cited art of Clear et al. (US '584) and Buell et al. (US '274).

Distinctions over the Cited Art

In the Clear et al. US '584 and Buell et al. US '584 patents, the presence of an elasticized waist feature is provided, which is on the opposite side of where the fastening tapes 92 exist (i.e., on the front side of a wearer), with the same being a main aspect of each of the inventions thereof.

For example, in the Buell et al. US '584 patent, claim 1 thereof recites as follows (wherein item numbers and bold italics have been added for emphasis):

1. A disposable absorbent article having a lateral centerline, and a lateral direction parallel to the lateral centerline, the absorbent article comprising: a containment assembly comprising an absorbent core having side edges and waist edges; and

an elastic waist feature at least extending longitudinally outwardly from one of said waist edges of said absorbent core, **said elastic waist feature comprising**

an elasticized waistband comprising

(i) **a shaping panel zone 136** being elastically extensible in at least the lateral direction,

(ii) **a waistline panel zone 138** resiliently flexurally joined with said shaping panel zone, said waistline panel zone being elastically extensible in at least the lateral direction, and

(iii) a predisposed, resilient, waistband flexural hinge zone joining said shaping panel zone and said waistline panel zone for allowing relative flexural bending between said shaping panel zone and said waistline panel zone when forces are applied and for

providing a restoring force to resiliently return said shaping panel zone and said waistline panel zone to essentially their preceding in-use configuration when the forces are removed.

Likewise, at column 51, lines 41-45 of the Buell et al. US '584 patent, it is disclosed that:

"Since in a preferred embodiment of the elastic waist feature, a segment of the backsheet has been removed to form the waistline panel zone, the extension forces of the waistline panel zone are less than the extension forces of the shaping panel zone."

However, the above description pertains to the side of the absorbent member that does not have fastening tapes, and does not pertain to the side of the absorbent member that contains fastening tapes. This is of course, completely unlike claim 1 of the present invention (currently amended), which is reproduced below (with *emphasis added*):

1. A disposable diaper which has a substantially elongate configuration and comprises a main body having a pair of side edges, and the main body having a liquid-permeable topsheet, a liquid-impermeable backsheet, a liquid-retentive absorbent member interposed between said topsheet and said backsheet and a pair of fastening tapes provided on respective side edges of said main body,

a waist opening portion and an under-waist portion being present in a portion of the diaper, with the under-waist portion having said fastening tapes attached thereto, the waist opening portion being provided with a continuous waist elastic member in a width direction of the diaper, and the under-waist portion being positioned right below the waist opening portion and being provided with a plurality of under-waist elastic members, in the width direction of the diaper, and

a pair of longer side portions of said diaper being respectively provided with a pair of leg elastic members,

wherein said under-waist elastic members are fixedly disposed in at least areas extending outwardly from each longer side of the absorbent member in their stretched state so as to manifest contractibility but are not disposed in at least a middle of an area where said absorbent member exists, and said under-waist portion has a greater extension stress than said waist opening portion in a width direction of the diaper. (emphasis added).

Similarly, while the "waistline panel zone 138" or "shaping panel zone 136" of the cited Clear et al. US '584 and Buell et al. US '584 references does exist outwardly, they are not from each longer side of the absorbent side member, but instead from the shorter side of the absorbent member (as is shown in Fig. 1 or 2B of the Buell et al. US '274 reference). This is quite different from the instant invention being claimed (as recited in above claim 1), wherein "said under-waist elastic members are fixedly disposed in at least areas extending outwardly from each longer side of the absorbent member...."

Apart from the above considerations, each of the clear et al. US '584 and Buell et al. US '584 references have elastic side panel and elastic waistband on the side thereof where fastening tapes exist. However there is no citation of any comparison between their elasticity's, even though the following can be ascertained, based on the description at column 45, lines 23-30 of the Buell et al. US '584 reference; namely, that the extension forces of the side panels

can be less than the extension forces of the waistband (which is quite the opposite to the instant invention being claimed):

"While the extension forces of the elasticized waistband 35 may be greater than the extension forces of the elasticized side panels 30, in a preferred embodiment of the present invention, the extension forces of the elasticized waistband 35 at its designed extensions is less than or equal to the extension forces of each elasticized side panel 30 at its designed extensions."
(see column 45, lines 23-30 of US '274; emphasis added)

Further, in the Buell et al. US '584 reference, the side panel is attached to the other members in a substantially *untensioned* condition, whereas in the instant invention the plurality of body surrounding elastic members is attached with an extended form.

"In an especially preferred embodiment, the elastic side panel member 90 is operatively associated in the ear flap 88 by joining the elastic side panel member 90 to the topsheet 24, the backsheet 26, or both while the elastic side panel member 90 is in a substantially **untensioned** condition." (see column 35, lines 57-62 of Buell et al. US '274; emphasis added)

Such a recitation in the cited art is of course contrary to claim 1 of the instant invention, which recites **"in their stretched state so as to manifest contractibility..."**

Further, it is submitted that the "elastic side panel members 90" which Buell et al. US '274 and Clear et al. US '584 provide for are different from the recited "under-waist" member in the inventive diapers under consideration. This is because the "elastic side panel members 90" extend over both any asserted waist opening

portion and under-waist portion in the absorbent articles of Buell et al. US '274 and Clear et al. US '584.

Notably, an elastic member when stretched in a longitudinal direction, also experiences a change in its perpendicular (transverse) direction. As such when an elastic member is stretched in one direction (e.g., longitudinal), it is also shortened in another direction (e.g., transverse). To envision this the Examiner need only consider what would happen when exerting an outward pulling force on a sheet or strip of adhesive material. While the material stretches longitudinally it will at the same time shorten in the traverse direction (e.g., in the middle sections thereof).

As such, when an absorbent member of the cited art of Buell et al. or Clear et al. is set with the pulling of fastening tapes, the "elastic side panel members 90" shorten in a transverse direction, thereby resulting in a loss of fitness to the wearer and a varying of a fixed position on the waist portion of the diaper, which is undesirable.

In contrast, because in the instantly claimed disposable diapers, the waist opening portion is provided with a continuous waist elastic member that is separate from the under-waist portion of the diaper and the plurality of under-waist elastic members, as well as the fastening tapes that are attached to the under-waist portion of the diaper, such problems do not occur or are much less

likely to occur in the disposable diapers of the instant invention, than in the absorbent articles of Clear et al. US '584 or Buell et al. US '274.

The above stated differences clearly evidence that neither the Buell et al. US '274 nor the Clear et al. US '584 patent is capable of anticipating applicants claimed invention. This is because neither of the references discloses or teaches each of the instantly claimed elements.

In order to apply the instant rejection against the pending claims under the provisions of 35 USC § 102, the USPTO relied on the fact that the cited Clear et al. '584 patent incorporates certain portions of the Buell et al. '274 disclosure therein.

However, it is submitted that even upon incorporating the disclosure of Buell et al. US '274 into the disclosure of Clear et al. US '584, one does not arrive at the instant invention as claimed. That is, one does not achieve an absorbent member having each of the limitations recited in the pending claims, and as a result the instant invention as claimed is not anticipated.

While Clear et al. US '584, may inherently discuss the possibility of a diaper having a waistband portion, that may be worn on either the front or back side of a wearer (e.g., see column 16, lines 62-68), the mere addition of the disclosure of Buell et al. US '274 to that of Clear et al. US '584, does not result in one

of the advantageous absorbent articles of the invention, or meet all of the limitations of any of pending claims 1-4.

In setting forth the rejection, the USPTO appears to be applying the following logic and/or reasoning.

- (i) Clear et al. '584 incorporates the disclosure of Buell et al. '274;
- (ii) Clear et al. '584 inherently teaches the possibility of a waist region on the front or back of a wearer;
- (iii) Buell et al. '274 only teaches positioning its waistband 35 on the front of the wearer;
- (iv) Buell et al. '274 teaches the extension force of the waistband 35 is less than that of the side panel 30; and
- (v) Based on items (i) - (iv) above, Clear et al. '584, must inherently provide for the Buell et al. '274 waistband 35 and side panel 30 with the relation of force in the waistband being \leq to that in the side panel.

However, such logic and such reasoning on the USPTO's part does not arrive at the instant invention as claimed under the provisions of 35 USC § 102 or 35 USC § 103(a), based on the following considerations.

In the disclosure of Buell et al. '274, at column 45, lines 23-30 the following is taught regarding the relative extension force strengths of the waistband and side panel.

...While the extension forces of the elasticized waistband 35 may be greater than the extension forces of

the elasticized side panels 30, in a preferred embodiment of the present invention, the extension forces of the elasticized waistband 35 at its designed extensions is less than or equal to the extension forces of each elasticized side panel 30 at its designed extensions. (emphasis added).

However, even based on this disclosure in Buell et al.

'274, one of ordinary skill would not be able to understand which extension force (waistband or side panel) is greater in absorbent articles of either Buell et al. '274, or Clear et al. '584 (which incorporates the Buell et al. '274 disclosure). This is because of the following points:

- (1) In both the embodiments of Buell et al. '274 and Clear et al. '584, there occur side panels that run and overlap with the waist portion or an end of the waistband portion. As a result, it is difficult or impossible to know or determine, with any precision what the extension force of the waistband portion is verses that of the side panels.
- (2) When comparing the extension force of the waistband of Clear et al. '584 or Buell et al. '274, with the side panel, one would necessarily be comparing a combined extension force of the waistband and side panel portions with that of the side panels (due to side panel overlap with the waist portion or an end of the waistband portion).

Consequently, one skilled in the art, would find it irrational to conclude that the disclosure of Clear et al '584 (or Buell et al. '274) would ever meet the limitations of the instant claims, which explicitly state in part as follows (see claim 1):

...and said under-waist portion has a greater extension stress than said waist opening portion in a width direction of the diaper.

Apart from the above considerations, in Buell et al. '274 at column 45, lines 30-42, the following is disclosed regarding extension strengths.

... An elasticized waistband 35 having lower extension forces than that of the elasticized side panels 30 provides for easy stomach movement without displacing the diaper on the child. The higher extension force elasticized side panels allow for small dimensional changes over the hip and under the stomach to keep the product comfortably in tension on the wearer. This design provides better fit, less leakage and improved comfort for the wearer through the reduction of sagging, gapping, rollover and roll-in at the front of the diaper and overall sliding/slipping of the diaper or diaper absorbent core on the wearer during use. (emphasis added)

Briefly, as can be understood from the above disclosure in Buell et al. '274, the phrase "an elasticized waistband 35 having lower extension forces" is aimed at being used on the front side, and not on the backside having fastening tapes. On the other hand, the phrase "the higher extension force elasticized side panels 30", which is thereafter described is intended to be used on the backside (see Figure 1). As such, the disclosure of Buell et al. '274 intends that one utilize an elasticized waistband 35 and elasticized side panels 30 in a manner where the same are oppositely positioned to each other (see Figure 1).

The dimensional changes of the human waist are well known in the art, with the dimensional change of the human waist being bigger at the stomach side/front side waist portion than at the backside waist portion. As a result, it is preferable for the stomach side/front side waist portion of a diaper to elongate more easily than the backside waist portion thereof. From such a viewpoint, the above noted disclosure of Buell et al. '274 can be better understood.

Thus, even if the disclosure of Buell et al. '274 is technically incorporated into the disclosure of Clear et al. '584, one of ordinary skill in the art would not arrive at the instant invention as claimed, based on the fact that (i) Buell et al. '274 only teaches positioning its waistband 35 on the front of the wearer, and (ii) Buell et al. '274 is only concerned with placing fastening tapes on backside of its absorbent member. Accordingly, it follows that one utilizing the incorporated teachings of Buell et al. '274 in Clear et al. '584, would not envision or otherwise reach a disposable diaper as instantly claimed, wherein the fastening tapes are positioned in the following manner (see instant claim 1):

... a waist opening portion and an under-waist portion being present in a portion of the diaper having said fastening tapes, the waist opening portion being provided with a waist elastic member and the under-waist portion being provided with a plurality of under-waist elastic

members, in the width direction of the diaper.... (emphasis added)

It is noted that nowhere in the cited disclosure of Buell et al. '274, is there provided any teaching or disclosure regarding any aim to control the relational forces in the waistband and the side panel for fitting or following to the body when its absorbent member is being worn by a wearer, and there is no aim to control the relational force where the fastening tapes are placed. This is, of course, counter to the purpose and function of the disposable diapers of the instant invention.

The above stated differences clearly evidence that neither the Buell et al. '274 nor the Clear et al. '584 patent is capable of anticipating applicants claimed invention. This is because neither reference discloses or teaches each of the instantly claimed elements and limitations.

The cited art of record also fails to render the instant invention obvious under the provisions of 35 USC § 103(a), since such references, whether considered singularly or in combination, completely fail to provide for, or otherwise disclose a disposable diaper as instantly claimed, and further fail to provide any motivation to those of ordinary skill in the art that would allow them to arrive at the same.

Provisional Interview Request

Should the present response not place the instant case in condition for allowance, the Examiner is again respectfully requested to contact the undersigned so that a personal interview may be scheduled at the Examiner's earliest convenience (and a PTOL-413A form filed if required by the Examiner). It is believed that such an interview would help to coalesce any remaining issues existing in the case, and thereby also allow applicants to expedite further prosecution of the pending claims towards ultimate allowance. Such an interview would also help applicants better determine what issues are appropriate and/or ripe for appeal in the matter of the instant case.

CONCLUSION

Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance clearly indicating that each of the pending claims 1-4 are allowed and patentable under the provisions of Title 35 of the United States Code.

Appl. No. 10/058,087

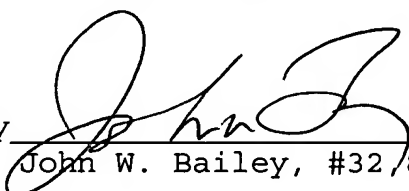
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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